

**THE EDUCATIONAL NEEDS  
OF NONSPEAKING STUDENTS  
AND THEIR TEACHERS**

by

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## THE EDUCATIONAL NEEDS OF NONSPEAKING STUDENTS AND THEIR TEACHERS OR PRIMARY CAREGIVERS

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Although in recent years, there has been an increased interest in the development of augmentative communication and technological aids for nonspeaking students, relatively little attention has been paid to their educational needs and those of their teachers. There has been only one reported study that systematically investigated the incidence rates and perceived educational needs of nonspeaking students. This paper will present findings from a second study that was carried out in Ontario to investigate the specific educational needs of the nonspeaking student population and their teachers or primary caregivers.

Ontario is Canada's largest province with a total population of some eight million people and a school-age population of about one and a half million students. According to the incidence statistics produced by this study (i.e. 0.15%), there are a total of some 2300 nonspeaking school-aged individuals in the school systems of the province. Also according to the study, very few of the teachers working with these students have had any special training for dealing with nonspeaking students or their augmentative communication systems.

In terms of this study's procedures, 186 school boards were sent an outline of the general objectives of the study and three sets of questionnaires. Each questionnaire set addressed a different level in the system. The first set was for the resource person responsible for overall professional support and teacher training in the board in this area. This person also usually served as the board contact person for this study. The questionnaire for the resource person addressed such issues as the general types of training in the use of augmentative communication systems that previously had been provided by the board. It also addressed the educational supports perceived to be most critical for those teachers working with the nonspeaking population. The second set of questionnaires was addressed to teachers or primary caregivers of nonspeaking students. Here the information obtained was related to such things as the types of backgrounds or specialized training these teachers felt they needed. Finally the third set of questionnaires was used to obtain individual educational profiles of the 1500 nonspeaking students being served by the boards who had participated in the study.

A surprisingly high response rate was achieved: boards serving over 70% of the student population in the province responded to the questionnaire and their overall reactions to the survey were very positive. In addition to describing these reactions, the paper will discuss:

1. The general demographic characteristics of this population such as age, sex, and whether they live in an urban or rural community;
2. The frequency and types of additional cognitive/physical/sensory handicaps of the nonspeaking students;
3. Types of service presently being provided to the nonspeaking students;
4. The extent and type of training needs perceived by the teachers and primary caregivers to be most important for improving their effectiveness;
5. Some alternative approaches to meeting these specific service needs;
6. How some variables such as the student's age or sex interrelated with other variables such as the probability of the student having some sort of augmentative system or to the stated communication goals for that student;
7. The present study as a model for gathering information of this type in other jurisdictions.



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## AACE SURVEY OF NON-SPEAKING STUDENTS

### INCIDENCE RATES FOR NON-SPEAKING STUDENTS

ORANGE COUNTY	WASHINGTON		BRITISH COLUMBIA	ONTARIO	
	RURAL	URBAN		ADM	ACT
.20%	.30%	.60%	.20%	.15%	.22%

### DESCRIPTIVE CHARACTERISTICS

#### SEX

MALE: 55.4%

FEMALE: 44.6%

#### DISTRIBUTION OF AGE LEVELS

(CODED ACCORDING TO THE AGE LEVELS USED IN THE WASHINGTON STUDY)

AGE	ONTARIO		WASHINGTON (URBAN)
	FREQUENCY	PERCENT	
4 - 5 yrs	53	5.3%	19%
6 - 11 yrs	374	37.1%	32%
12 - 16 yrs	337	33.4%	25%
17 - 21 yrs	243	24.1%	23%
	8	MISSING	
TOTAL	1015	100%	100%

VALID CASES    ONTARIO:        1007  
                     WASHINGTON:    892

Note: The total number of returns from the survey exceed 1500. The above statistics relate to the first 1015 to be entered into the data base.



## DISTRIBUTION OF TYPE OF HANDICAP

N = 987 (1015)

TYPE OF HANDICAP	WASHINGTON		ONTARIO
	EAST	WEST	
	(425)	(703)	(987)
Mentally retarded			
Mild/Moderate	28.2%	18.3%	.4%
(trainable)	13.6%	30.6%	45.3%
Orthopaedic	3.5%	6.1%	4.0%
Severe Behavioural Dis. (Emot/behav disorder, autism-2.9%)	0.5%	5.0%	7.1%
Multihandicap	47.3%	24.0%	42.3%
Develop. hand. (MR?)	1.2%	14.9%	-
Severe language hand.	5.6%	-	-
Other (Deaf, blind, Lang Imp. Speech Imp. )	-	1.0%	.9%
	100%	100%	100%

### ASSUMPTIONS:

1. Problem in comparability of definition of mild, moderate and severe MR.
2. In our terms, Emotional disturbance and autism are included in the Severe Behavioural Disorder category.
3. The "nonspeaking" criteria constitutes a 'severe language handicap' in our study and hence we didn't get an additional category.
4. Where definitions are clearly comparable, the incidence rates seem remarkable similar to at least one of the Washington samples.
5. Table 1 (EAST-RURAL) shows # NS according to Wash State Eligibility criteria even though questionnaire used only five general categories.





## AACE SURVEY OF NON-SPEAKING STUDENTS

## SENSORY AND MOBILITY AIDS USED BY STUDENTS

SENSORY AIDS  
(N=514)

SENSORY AID	NUMBER OF RESPONSES	PCT OF RESPONSES
None	387	44.4%
Switch activated devices	143	16.4%
Glasses	129	14.8%
Eating aids	121	13.9%
Hearing aids	32	3.7%
Writing tools	49	5.6%
Page turners	11	1.3%
	-----	-----
TOTAL RESPONSES	872	100.0%

← } Intensity!

←

←

MOBILITY AIDS  
(N=550)

MOBILITY AID	NUMBER OF RESPONSES	PCT OF RESPONSES
None	291	35.8%
Wheelchairs	374	46.1%
Powered wheelchair	53	6.5%
Walker	43	5.3%
Scooter	1	0.1%
Other	50	6.2%
	-----	-----
TOTAL RESPONSES	812	100.0%

← needed for independence



# AACE SURVEY OF NON-SPEAKING STUDENTS

## MANNER IN WHICH STUDENT DEMONSTRATES

"INTENT TO COMMUNICATE"

(N - 861)

METHOD	NUMBER OF RESPONSES	PERCENT OF CASES
1. { Speech, verbalizing	227	26.4%
2. { Gestures	210	24.4%
3. { Sounds	185	21.5%
4. { Signing	166	19.3%
5. { Vocalization	142	16.5%
6. { Actions	138	16.0%
7. Eye contact	102	11.8% ←
8. Facial expressions	75	8.7% ←
9. Pointing	42	4.9%
10. Eye pointing	29	3.4%
11. Touching	25	2.9%
12. Limited signing	20	2.3%
13. Blissymbolics	19	2.2%
14. Direct leading	16	1.9%
15. Picboard	15	1.7%
16. Picture symbols	8	0.9%
17. Locomotion	8	0.9%
18. Echolalia	8	0.9%
19. Communication board	5	0.6%
20. Printing	3	0.3%
21. Inappropriate behaviour	3	0.3%
22. Writing	3	0.3%
	-----	-----
TOTAL RESPONSES:	1449	168.3%





# AACE SURVEY OF NON-SPEAKING STUDENTS

## METHODS FOR DEMONSTRATING "INTENT TO COMMUNICATE" GROUPED ACCORDING TO TYPE OF METHOD (N = 861)

TYPE OF METHOD	NUMBER OF REPOSSES	PCT OF RESPONSES	PCT OF CASES
Gesture/emotion (Washington Study)	517	35.7%	60.0%
RURAL			39.9%
URBAN			30.9%
Verbalization	562	38.8%	65.3%
Formal systems: Signing	186	12.8%	21.6%
Formal systems: Picture symbols	53	3.7%	6.2%
Use of eyes (contact & pointing)	131	9.0%	15.2%
	-----	-----	-----
TOTAL RESPONSES	1449	100.0%	168.3%

## PERCENT OF NON-SPEAKING STUDENTS MEETING "MINIMAL CRITERIA" FOR ACS

EAST (RURAL)	WEST (URBAN)	ONTARIO (RURBAN)
56.2%	62.4%	87.7%*

\* (Teacher indicates "intent to communicate" only.)

N.B.  
when no  
criteria





# AACE SURVEY OF NON-SPEAKING STUDENTS

## ACS ASSESSMENTS

	WASHINGTON		ONTARIO
	RURAL	URBAN	
Percent needing initial assessment:	44.5%	16.2%	35.7%*
Percent needing follow-up assessment:	27.8%	19.1%	36.0%

## TIME SINCE LAST ASSESSMENT

(Ontario data only)

(N = 653)

TIME	NUMBER OF RESPONSES	PCT OF RESPONSES
Within previous year	352	53.9%
One to two years	117	17.9%
Two to three years	61	9.3%
Three to four years	28	4.3%
Four to five years	18	2.8%
Five to six years	10	1.5%
Six to seven years	9	1.4%
Seven to eight years	1	.2%
Nine to ten years	1	.2%
Greater than ten years	54	8.3%
	362	MISSING
	----	-----
TOTAL	1015	100.0%

\* This data was not obtained in the ONTARIO study, but since 64.3% are known to have had at least one assessment, then the maximum needing an initial assessment would be 35.7% - about midpoint of Washington data



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AACE SURVEY OF NON-SPEAKING STUDENTS

WHO DOES ASSESSMENTS  
(N = 768)

ASSESSOR	NUMBER OF RESPONSES	PCT OF RESPONSES
Board employee	282	36.7%
Treatment centre	224	29.2%
Hospital	52	6.8%
Private therapist	41	5.3%
Other	138	18.0%
Do not know	31	4.0%
	----	-----
TOTAL RESPONSES	768	100.0%

← N.B.

NUMBER OF PREVIOUS ASSESSMENTS  
(N = 833 )

NUMBER OF ASSESSMENTS	NUMBER OF RESPONSES	PCT OF RESPONSES
0	178	21.4%
1	226	27.0%
2	137	6.4%
3	92	11.0%
4-5	46	5.6%
6-10	36	4.4%
10+	7	.8%
Do not know	111	13.3%
	----	-----
TOTAL RESPONSES	833	100.0%

← N.B.





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# AACE SURVEY OF NON-SPEAKING STUDENTS

## TYPE OF ACS USED

TYPE OF ACS	ONTARIO	WASHINGTON	
		RURAL	URBAN*
Sign	32.2%	21.7%	37.6%
Gesture/emotion	35.7%	37.4%	27.6%
Language boards	5.7%	7.1%	17.2%
Electronic	1.5%	4.5%	5.6%
Other	3.1%	4.7%	1.4%
TOTAL	78.2%	75.4%	89.4%
TOTAL WITHOUT "Gesture/emot"	45.5%	38.0%	61.8%

(\* These are the figures excluding students with sensory impairment)

## PROFICIENCY WITH PRIMARY ACS

	GOOD	AVERAGE	POOR
PRIMARY SYSTEM	12.3%	23.7%	64.1%
SUPPORT SYSTEM I	16.0%	30.7%	53.4%
SUPPORT SYSTEM II	15.4%	53.8%	30.8%

## EFFECTIVENESS OF ACS SYSTEM

	VERY EFFECTIVE	SOMEWHAT EFFECTIVE	BETTER THAN NOTHING	INEFFECTIVE
With speaking peers	7.3%	30.3%	26.1%	36.3%
With non-speaking peers	4.7%	18.2%	21.3%	55.8%

PERCENT SAYING STUDENT CURRENTLY NEEDS TRAINING ON ACS: 95.5%





# AACE SURVEY OF NON-SPEAKING STUDENTS

## CHARACTERISTICS OF RESPONDENTS

### POSITION OF RESPONDENT

POSITION	NUMBER	PERCENT
Teacher	209	78.7%
Special Education teacher	19	7.1%
Consultant	10	3.7%
Resource person	5	1.9%
Speech pathologist	3	1.1%
Principal	2	.7%
Teacher Aid	2	.7%
Other	18	6.7%
	----	-----
TOTAL	268	100%

### TEACHING EXPERIENCE

	MEAN	MEDIAN
Total years teaching	11.6	10.0
Total years teaching nonspeaking	5.4	4.0
Has how many non-speaking students	4.5	3.5
How many have an ACS	2.9	1.0

### SPECIAL EDUCATION TRAINING

TRAINING	NUMBER	PERCENT
Special Education I	36	15.1%
Special Education II	39	16.4%
Special Education Specialist	98	41.2%
TMR I	24	10.1%
TMR II	12	5.0%
Sign Language	6	2.5%
Early Childhood Education	3	1.3%
Other (break out & assign to other)	20	8.4%
	----	-----
TOTAL	238	100%

91.5% report having some type of formal special education training



# AACE SURVEY OF NON-SPEAKING STUDENTS

## TEACHER'S EDUCATIONAL PREFERENCES AND NEEDS

[VH - Very Helpful      H - Helpful]

WASHINGTON				ONTARIO	
RURAL		URBAN			
VH	VH+H	VH	VH+H	VH	VH+H

### I. Information respondent would personally find helpful:

- Pre-requisites of ACS (3)	55%	91%	55%	91%	51%	88%
- Curriculum approaches (1)	66%	93%	69%	95%	64%	94%
- Special reading systems (3)	54%	83%	50%	88%	46%	88%
- Funding sources for ACS (5)	54%	87%	64%	94%	41%	76%
- Appropriate referral agencies	60%	90%	58%	95%	-	-
- Psycho-social development (2)	-	-	-	-	46%	89%
- Spec technology for comm. (4)	-	-	-	-	45%	86%

### II. Most effective format for dissemination:

- Literature (5)	-	-	-	-	23%	81%
- Itinerant resource teacher (3)	-	-	-	-	61%	92%
- Audiovisual materials (4)	-	-	-	-	34%	90%
- Workshops (1)	-	-	-	-	77%	99%
- College courses (6)	-	-	-	-	29%	78%
- In-service training (2)	-	-	-	-	75%	98%
- Teacher visit to res. centre (4)	-	-	-	-	47%	90%
- Computer bulletin board	-	-	-	-	6%	41%
- Telephone hot line	-	-	-	-	14%	44%

### III Degree of helpfulness:

- Teacher release time (2)	49%	80%	59%	92%	83%	96%
- Funding for equipment (3)	44%	80%	57%	88%	65%	94%
- Information for parents (4)	51%	83%	57%	94%	54%	93%
- Information for teachers (1)	-	-	-	-	79%	99% (1)
- Information for administrators (5)	41%	82%	51%	93%	58%	92%
- Other						



# AACE SURVEY OF NON-SPEAKING STUDENTS

## TEACHER SPECIFIED EDUCATIONAL GOALS (In order of frequency of occurrence) (N = 972)

EDUCATIONAL GOAL	NUMBER OF RESPONSES	PCT OF RESPONSES	PCT OF CASES
1. Self help skills	333	19.2%	34.3%
2. Improved communication	334	19.2%	34.4%
3. Motor skills	247	14.2%	25.4%
4. Functional curriculum	150	8.6%	15.4%
5. Independence	103	5.9%	10.6%
6. Readiness	96	5.5%	9.9%
7. Sensory stimulation	80	4.6%	8.2%
8. Increased attention span	60	3.5%	6.2%
9. Vocational skills	37	2.1%	3.8%
10. Awareness of surroundings	28	1.6%	2.9%
11. Prevocational skills	27	1.6%	2.8%
12. Following directions	24	1.4%	2.5%
13. Increase appropriate behaviour	25	1.4%	2.6%
14. Responding	24	1.4%	2.5%
15. Eye contact	22	1.3%	2.3%
16. Decrease inappropriate behaviour	21	1.2%	2.2%
17. Age-appropriate activities	20	1.2%	2.1%
18. Community involvement	18	1.0%	1.9%
19. Appropriate play	17	1.0%	1.7%
20. Integrate full or part	17	1.0%	1.7%
21. Visual tracking	8	0.5%	0.8%
22. Peer interaction	7	0.4%	0.7%
23. Maintenance program	7	0.4%	0.7%
24. Individual program plan	5	0.3%	0.5%
25. Microcomputer program	3	0.2%	0.3%
26. Develop self worth	2	0.1%	0.2%
27. Other	22	1.3%	2.3%
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TOTAL RESPONSES	1737	100.0%	178.7%





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AACE SURVEY OF NON-SPEAKING  
TEACHER SPECIFIED SOCIAL GOALS  
(In order of frequency of occurrence)  
(N = 926)

SOCIAL GOAL	NUMBER OF RESPONSES	PCT OF RESPONSES	PCT OF CASES
1. Peer interaction	387	30.2%	41.8%
2. Increase appropriate behaviour	196	15.3%	21.2%
3. Decrease inappropriate behaviour	105	8.2%	11.0%
4. Awareness of surroundings	72	5.6%	7.8%
5. Improved communication	69	5.4%	7.5%
6. Self help skills	67	5.2%	7.2%
7. Appropriate play	61	4.8%	6.6%
8. Independence	53	4.1%	5.7%
9. Responding	47	3.7%	5.1%
10. Integrate full or part time	38	3.0%	4.1%
11. Increase attention span	34	2.7%	3.7%
12. Eye contact	28	2.2%	3.0%
13. Community involvement	26	2.0%	2.8%
14. Develop self worth	18	1.4%	1.9%
15. Motor skills	8	0.6%	0.9%
16. Following directions	6	0.5%	0.6%
17. Vocational skills	5	0.4%	0.5%
18. Readiness	4	0.3%	0.4%
19. Trusting others	2	0.2%	0.2%
20. Prevocational skills	3	0.2%	0.3%
21. Functional curriculum	1	0.1%	0.1%
22. Sensory stimulation	1	0.1%	0.1%
23. Maintenance program	1	0.1%	0.1%
25. Other	28	2.2%	3.0%
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TOTAL RESPONSES	1280	100.0%	138.2%



# AACE SURVEY OF NON-SPEAKING STUDENTS

## TEACHER SPECIFIED COMMUNICATION GOALS (In order of frequency of occurrence) (N = 907)

COMMUNICATION GOAL	NUMBER OF RESPONSES	PCT OF RESPONSES	PCT OF CASES
1. Increase speech vocalization	223	18.2%	24.6%
2. Communicating needs	202	16.5%	22.3%
3. Increase signs	167	13.6%	18.4%
4. Increase pictures, symbols	126	10.3%	13.9%
5. Responding	118	9.6%	13.0%
6. Eye contact	50	4.1%	5.5%
7. Learn pictures, symbols	35	2.9%	3.9%
8. Increase expressive & receptive language	34	2.8%	3.7%
9. Learn signs	29	2.4%	3.2%
10. Gestures	28	2.3%	3.1%
11. Visual tracking	26	2.1%	2.9%
12. Vocal imitation	22	1.8%	2.4%
13. Spontaneous picture, symbol use	14	1.1%	1.5%
14. Learn speech	12	1.0%	1.3%
15. Initiate and imitate activities	6	0.5%	0.7%
16. Auditory tracking	15	1.2%	1.7%
17. Eye pointing	12	1.0%	1.3%
18. Listening, attending	22	1.8%	2.4%
19. Writing or typing	11	0.9%	1.2%
20. Spontaneous use of signs	11	0.9%	1.2%
21. Spontaneous speech	8	0.7%	0.9%
22. Other	55	4.5%	5.9%
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TOTAL RESPONSES	1225	100%	135.1%





# **AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN EDUCATION A SURVEY OF NONSPEAKING STUDENTS**

In order to develop support services that will assist in meeting the needs of educators and their nonspeaking students, we are asking that you complete the following questionnaire. We would like to know (1) the current status of nonspeaking students in the Province of Ontario, and (2) what information is needed by educators regarding the use of Augmentative Communication Systems to maximize their effectiveness in the classroom. In this questionnaire, the following definitions are applied:

## **Nonspeaking individuals are:**

1. Persons who have a severe speech problem due to physical, neuromuscular, cognitive, or emotional deficits and not due primarily to hearing impairment.
2. Persons who cannot, at the present time, use speech independently as their primary means of communication (e.g., cannot be easily understood by people who come into casual contact with the student such as a sitter, busdriver or neighbour).

## **Augmentative Communication Systems are:**

Communication devices and/or systems used to supplement or substitute for the speech of nonspeaking individuals. These include sign language and personal gestures; communication devices such as electronic communication aids, computers; and/or communication boards using graphics systems such as Blissymbolics, pictures and words.

Thank you for completing this questionnaire.  
The confidentiality of your responses is guaranteed.



# AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN EDUCATION SURVEY OF NONSPEAKING STUDENTS

## STUDENT PROFILES

*Please fill in the following information for each nonspeaking student you work with*

### General Description

1. Age of student: \_\_\_\_\_ Sex(M/F): \_\_\_\_\_
2. Designated handicap (use attached Ministry of Education definitions): \_\_\_\_\_
3. Does the student demonstrate an "intent to communicate" in some observable manner?  
(Yes/No) \_\_\_\_\_  
If yes, indicate how \_\_\_\_\_
4. Is the student able to attend sufficiently to indicate that he or she is receiving information (e.g., by making or avoiding eye contact, or by voluntary body movement)? \_\_\_\_\_
5. What type of educational program is the student currently attending?(please check all that apply):  
Special School \_\_\_\_\_  
Special Class \_\_\_\_\_  
Part time withdrawal \_\_\_\_\_  
Resource room support \_\_\_\_\_  
Itinerant teacher \_\_\_\_\_  
A fully integrated programme \_\_\_\_\_  
Other(Please specify) \_\_\_\_\_
6. What are the average number of 1:1 teacher or aide-student contact hours the student is currently receiving per week? \_\_\_\_\_
7. What are the current general educational goals for this student?  
\_\_\_\_\_  
\_\_\_\_\_
8. What are the current general social goals for this student?  
\_\_\_\_\_  
\_\_\_\_\_



### Augmentative systems being used

For a student who is using a formal augmentative system, please fill out the following information. [In describing the systems being used, please indicate the *type of device* (e.g., electronic communications aid, communication board, computer, signing) and the *graphic* system or set being used (e.g., pictures, Blissymbols, words).]

1. What is the **primary** augmentative system the student is currently using in the classroom?

Device \_\_\_\_\_ Graphic \_\_\_\_\_

Signing \_\_\_\_\_

2. Does the student still require training on the device, graphic or signing? Yes/No \_\_\_\_\_

If yes, indicate the type of training required.

Regular (weekly) \_\_\_\_\_

Maintenance (monthly) \_\_\_\_\_

Other (Please specify) \_\_\_\_\_

3. What is the student's level of proficiency with the primary system?

Good \_\_\_\_\_ Average \_\_\_\_\_ Poor \_\_\_\_\_

4. What other system(s) is the student using in support of the primary system?

List in order of extent of usage.

Device	Graphic	# hours trained	Proficiency (G, A, P)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

5. How effective is the augmentative communication system that the student is currently using in promoting interactions with *speaking* peers? (Circle one)

very effective      somewhat effective      better than nothing      ineffective

6. How effective is the augmentative communication system that the student is currently using in promoting interactions with *nonspeaking* peers? (Circle one)

very effective      somewhat effective      better than nothing      ineffective

7. To your knowledge, has this student been **unsuccessful** in learning to use any augmentative communications system? Yes/No \_\_\_\_\_

If yes, please indicate the type of system \_\_\_\_\_





9. Within the educational program, what are the current general **communication** goals for this student?

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10. Describe the student's current means of communicating.

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11. Does the student have any of the following sensory aids or adaptive devices?

\_\_\_\_\_glasses

\_\_\_\_\_hearing aids

\_\_\_\_\_writing tools

\_\_\_\_\_eating aids

\_\_\_\_\_page turners

\_\_\_\_\_switch activated toys or devices such as tape recorders

12. Is the student **independently** mobile?      Yes/No \_\_\_\_\_

13. Does the student have mobility aids?

\_\_\_\_\_wheelchairs

\_\_\_\_\_powered wheelchair

\_\_\_\_\_other(please specify)

### Communication Assessment

1. To your knowledge, how many formal communication assessments has the student had? \_\_\_\_\_

2. Who carried out the last communication assessment for this student?

An employee of the board \_\_\_\_\_

A treatment centre \_\_\_\_\_

A hospital \_\_\_\_\_

A private therapist \_\_\_\_\_

Other (please specify) \_\_\_\_\_

Don't know \_\_\_\_\_

3. When was the last formal communication assessment given this student? \_\_\_\_\_

4. In your opinion, does this student currently need a follow-up assessment? \_\_\_\_\_



COMMENTS

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# AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN EDUCATION SURVEY OF NONSPEAKING STUDENTS

*Name & Position of respondent:* \_\_\_\_\_

*Board:* \_\_\_\_\_

1. How many **nonspeaking** students are you currently working with? \_\_\_\_\_
2. How many of your **nonspeaking** students are currently using an augmentative communication system? \_\_\_\_\_
3. Have you had any formal special education training? Yes/No \_\_\_\_\_  
If yes, indicate the type of training you have received. \_\_\_\_\_
4. How many years have you been teaching? \_\_\_\_\_
5. How many years have you taught **nonspeaking** students? \_\_\_\_\_
6. How many years have you been with your present school board? \_\_\_\_\_
7. Do you know of any workshops\sessions on Augmentative Communication Systems that have been offered?  
Yes/No \_\_\_\_\_
8. If yes, how many did you attend? \_\_\_\_\_  
If you did not attend, why not? \_\_\_\_\_
9. Please check what information you personally would find most helpful in working with nonspeaking students. Use the scale -- 1=very helpful; 2=helpful; 3=not very helpful.
  - a. Prerequisites for use of Augmentative Communication Systems \_\_\_\_\_
  - b. Curricular approaches and intervention strategies \_\_\_\_\_
  - c. Specialized orthography and symbol systems that can be used \_\_\_\_\_
  - d. Funding sources for Augmentative Communication Systems in Ontario \_\_\_\_\_
  - e. Information on the psychosocial development of the nonspeaking child \_\_\_\_\_
  - f. Description of specialized technology for communication \_\_\_\_\_
  - g. Other (please specify) \_\_\_\_\_





10. What format would you find most effective? Please use the scale -- 1 = very effective; 2 = effective; 3 = not very effective

- \_\_\_\_\_ Literature
- \_\_\_\_\_ Itinerant Resource Teacher
- \_\_\_\_\_ Audiovisual Materials
- \_\_\_\_\_ Workshops
- \_\_\_\_\_ College Courses
- \_\_\_\_\_ Inservice Training
- \_\_\_\_\_ Teacher visit to resource centre
- \_\_\_\_\_ Computer bulletin board and conferencing system
- \_\_\_\_\_ Telephone hot line
- \_\_\_\_\_ Other (Please specify)

11. As far as you are concerned, how helpful would it be to your school to receive assistance in the provision of services to **nonspeaking** individuals in the following areas? Use the scale: 1 = very helpful; 2 = helpful; 3 = not very helpful

- a. Release time/funding for inservices and workshops \_\_\_\_\_
- b. Funding for equipment \_\_\_\_\_
- c. Information for parents \_\_\_\_\_
- d. Information for teachers \_\_\_\_\_
- e. Information for administrators \_\_\_\_\_
- f. Other (please specify) \_\_\_\_\_

COMMENTS

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If you have any questions, please contact Dorothy Dent at (416) 444-6605

THANK YOU SINCERELY FOR YOUR TIME AND VALUABLE INFORMATION



# **AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN EDUCATION (AACE)**

A survey of the needs of nonspeaking students  
and their teachers in the  
Province of Ontario

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# AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN EDUCATION SURVEY OF NONSPEAKING STUDENTS

Name & Position of respondent: \_\_\_\_\_

Board \_\_\_\_\_

## 1. STUDENT POPULATION

- a. Please indicate the number of **nonspeaking students** you have in each range in your school board.

### Age Range

4-5yrs      6-8yrs      9-11yrs      12-14yrs      15-18yrs      19-21yrs      21+

- b. Using the **Ministry of Education** definitions (see attached), please indicate the **number of nonspeaking students** you have within each category.

I. \_\_\_\_\_ *Behaviour Disorder*

II. \_\_\_\_\_ *Communication Disorder*

- \_\_\_\_\_ 1. Autism
- \_\_\_\_\_ 2. Language Impairment
- \_\_\_\_\_ 3. Speech Impairment
- \_\_\_\_\_ 4. Learning Disability

III. \_\_\_\_\_ *Intellectual*

- \_\_\_\_\_ 1. Giftedness
- \_\_\_\_\_ 2. Educable Retardation
- \_\_\_\_\_ 3. Trainable Retardation

IV. \_\_\_\_\_ *Physical Handicap*

- \_\_\_\_\_ 1. Orthopaedic Handicap
- \_\_\_\_\_ 2. Visual Impairment

V. \_\_\_\_\_ *Multiple Handicap*

(In the **Multiple Handicap** group indicate the number whose **primary** handicap is within one of the following categories):

- \_\_\_\_\_ 1. Behaviour Disorder
- \_\_\_\_\_ 2. Communication Disorder
- \_\_\_\_\_ 3. Intellectual
- \_\_\_\_\_ 4. Physical
- \_\_\_\_\_ 5. Don't know

- c. Of your nonspeaking students, how many use a formal Augmentative Communication System? \_\_\_\_\_



# AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN EDUCATION A SURVEY OF NON-SPEAKING STUDENTS

In order to develop support services that assist in meeting the needs of educators and their nonspeaking students, we are completing the following questionnaire. We would like to know (1) the current status of nonspeaking students in the Province of Ontario, and (2) what information is needed by educators regarding the use of Augmentative Communication Systems to maximize their effectiveness in the classroom. In this questionnaire, the following definitions are applied:

## **Nonspeaking individuals :**

1. Persons who have a severe speech problem due to physical, neuromuscular, cognitive, or emotional deficits and are unable to communicate primarily by hearing impairment.
2. Persons who cannot, at present time, communicate by speech independently as their primary means of communication (e.g. cannot be easily understood by people who come into casual contact with the student such as a sitter, driver or neighbour).

## **Augmentative Communication System:**

Communication devices and systems used to supplement or substitute for the speech of nonspeaking individuals. They include sign language and personal gestures; communication devices such as electronic communication aids, communication boards using graphics and/or communication boards using graphics and symbols.

Thank you for completing this questionnaire.  
The confidentiality of your responses is guaranteed.





## 2. INFORMATION AND TRAINING

- a. How many persons from your school board have attended a conference or workshop on Augmentative Communication Systems?

\_\_\_\_\_ Teachers  
\_\_\_\_\_ Consultants  
\_\_\_\_\_ Administrators

- b. Do you think that your board would like to receive information about Augmentative Communication Systems? Yes/No \_\_\_\_\_

If yes, please indicate in which of the following areas you feel you board would find information helpful according to the scale 1 = very helpful; 2 = helpful; 3 = not very helpful.

- A. Prerequisites for use of Augmentative Communication Systems \_\_\_\_\_  
B. Curricular approaches and intervention strategies \_\_\_\_\_  
C. Specialized orthography and symbol systems that can be used \_\_\_\_\_  
D. Funding sources for Augmentative Communication Systems in Ontario \_\_\_\_\_  
E. Information on the psychosocial development of the nonspeaking child \_\_\_\_\_  
F. Description of specialized technology for communication \_\_\_\_\_  
G. Other (please specify) \_\_\_\_\_

- c. What format do you think would be most effective for your board? (Please rank-order your top 3 choices 1,2,3)

\_\_\_\_\_ Literature  
\_\_\_\_\_ Itinerant Resource Teacher  
\_\_\_\_\_ Audiovisual Materials  
\_\_\_\_\_ Workshops  
\_\_\_\_\_ College Courses  
\_\_\_\_\_ Inservice Training  
\_\_\_\_\_ Teacher visit to resource centre  
\_\_\_\_\_ Computer bulletin board and conferencing system  
\_\_\_\_\_ Telephone hot line  
\_\_\_\_\_ Other(Please specify)

- d. Please indicate how important it would be to your board to receive assistance in each of the following areas. Use the scale 1 = very helpful; 2 = helpful; 3 = not very helpful.

- A. Release time/funding for inservices and workshops \_\_\_\_\_  
B. Funding for equipment \_\_\_\_\_  
C. Information for parents \_\_\_\_\_  
D. Information for teachers \_\_\_\_\_  
E. Information for administrators \_\_\_\_\_  
F. Other (please specify) \_\_\_\_\_

### COMMENTS

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If you have any questions, please contact Dorothy Dent at (416) 444-6605

THANK YOU SINCERELY FOR YOUR TIME AND VALUABLE INFORMATION



# AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN EDUCATION SURVEY OF NONSPEAKING STUDENTS

## MINISTRY OF EDUCATION DEFINITIONS OF EXCEPTIONALITY

### 1. BEHAVIOUR

#### 1. *Emotional Disturbance and/or Social Maladjustment*

Definition:

A learning disorder characterized by specific behaviour problems over such period of time, and to such a marked degree, and of such a nature, as to adversely affect educational performance, and that may be accompanied by one or more of the following:

- a. an inability to build or to maintain interpersonal relationships
- b. excessive fears or anxieties
- c. a tendency to compulsive reaction
- d. an inability to learn that cannot be traced to intellectual, sensory, or other health factors, or any combination thereof

### II. COMMUNICATION

#### 1. *Autism*

Definition:

A severe learning disorder that is characterized by:

- a. disturbances in:
  - rate of educational development;
  - ability to relate to the environment;
  - motility;
  - perception, speech, and language;
- b. lack of the representational-symbolic behaviour that precedes language.



## 2. *Hearing Impairment*

Definition:

An impairment characterized by deficits in language and speech development because of a diminished or non-existent auditory response to sound (i.e., hard of hearing, deaf).

## 3. *Language Impairment*

Definition:

A learning disorder characterized by an impairment in comprehension and/or use of verbal communication or the written or other symbol system of communication, which may be associated with neurological, psychological, physical, or sensory factors, and which may:

- a. involve one or more of the form, content, and function of the language in communication;
- b. include one or more of the following:
  - language delay;
  - dysfluency;
  - voice and articulation development, which may or may not be organically or functionally based.

## 4. *Speech Impairment*

Definition:

A disorder in language formulation that may be associated with neurological, psychological, physical, or sensory factors; that involves perceptual motor aspects of transmitting oral messages; and that may be characterized by impairment in articulation, rhythm, and stress.

## 5. *Learning Disability*

Definition:

A learning disorder evident in both academic and social situations that involves one or more of the processes necessary for the proper use of the spoken language or the symbols of communication, and that is characterized by the condition that:

- a. is not primarily the result of:
  - impairment of vision;
  - impairment of hearing;



- physical handicap;
  - mental retardation;
  - primary emotional disturbance;
  - cultural difference;
- b. results in significant discrepancy between academic achievement and assessed intellectual ability, with deficits in one or more of the following:
- receptive language (listening, reading);
  - language processing (thinking, conceptualizing, integrating);
  - expressive language (talking, spelling, writing);
  - mathematical computations;
- c. may be associated with one or more conditions diagnosed as:
- a perceptual handicap;
  - a brain injury;
  - minimal brain dysfunction;
  - dyslexia;
  - developmental aphasia

### III. INTELLECTUAL

#### 1. *Giftedness*

Definition:

An unusually advanced degree of general intellectual ability that requires differentiated learning experiences of a depth and breadth beyond those normally provided in the regular school program to satisfy the level of educational potential indicated.

#### 2. *Educable Retardation*

Definition:

A learning disorder characterized by:

- a. an ability to profit educationally within a regular class with the aid of considerable curriculum modification and supportive services;







- b. an inability to profit educationally with a regular class because of slow intellectual development;
- c. a potential for academic learning, independent social adjustment, and economic self-support.

### 3. *Trainable Retardation*

#### Definition:

A severe learning disorder characterized by

- a. an inability to profit from a special education program for the educable retarded because of slow intellectual development;
- b. an ability to profit from a special education program that is designed to accommodate slow intellectual development;
- c. a limited potential for academic learning, independent social adjustment, and economic self-support.

## IV. PHYSIC

### 1. *Orthopaedic and/or Physical Handicap*

#### Definition:

A condition of such severe physical limitation or deficiency as to require special assistance in learning situations to provide the opportunity for educational achievement equivalent to that of the pupils without exceptionalities who are of the same age or development level.

### 2. *Visual Impairment*

#### Definition:

A condition of partial or total impairment of vision that even with correction affects educational performance adversely (i.e., limited vision, blind).

## V. MULTIP

### 1. *Multihandicap*

#### Definition:

A combination of learning or other disabilities, impairments, or physical handicaps, that is of such nature as to require special educational achievement, the services of one or more teachers holding qualifications for special education and the provision of support services appropriate to such disabilities, impairments, or handicaps.

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